

## ABSTRACT

A voice authentication apparatus capable of reliably performing personal identification based on a communicating party's voice of an incoming call between communication terminal apparatus and preventing communication with ill-intentioned people. In this apparatus, when the communicating party is specified through key operation of user specification input section 201, a user specification signal is outputted to voice data sample storage section 202. At communication section 205, a received voice signal received from mobile telephone apparatus 100 is outputted to voice verification section 203. Voice data sample storage section 202 reads the corresponding voice sample data according to the user specification signal inputted from user specification input section 201 and output as a corresponding sample signal to voice verification section 203. Voice verification section 203 verifies the received voice signal inputted from communication section 205 against the corresponding sample signal inputted from voice data sample storage section 202 and outputs the verification result as a verification result signal to display section 204.

## FIG.1

100 USER A

VOICE OF USER A

N NETWORK

5 VOICE OF USER A

200 USER B

## FIG.2

201 USER SPECIFICATION INPUT SECTION

10 USER SPECIFICATION SIGNAL

202 VOICE DATA SAMPLE STORAGE SECTION

CORRESPONDING SAMPLE SIGNAL

203 VOICE VERIFICATION SECTION

VERIFICATION RESULT SIGNAL

15 204 DISPLAY SECTION

205 COMMUNICATION SECTION

RECEIVED VOICE SIGNAL

## FIG.3

20 100 USER A TERMINAL

VOICE OF USER A

N NETWORK

TRANSFER OF VOICE OF USER A + USER SEPCIFICATION

VERIFICATION RESULT

25 400 REMOTE TERMINAL

VOICE OF USER A

VERIFICATION RESULT

TRANSFER OF VOICE OF USER A + USER SEPCIFICATION  
300 USER B TERMINAL

FIG.4

- 5 RECEIVED VOICE SIGNAL
  - 301 TRANSMISSION SECTION
  - USER SPECIFICATION SIGNAL
  - 201 USER SPECIFICATION INPUT SECTION
  - USER B TERMINAL
- 10 401 RECEPTION SECTION
  - 402 VOICE DATA SAMPLE STORAGE SECTION
  - CORRESPONDING SAMPLE SIGNAL
  - 403 VOICE VERIFICATION SECTION
  - 404 TRANSMISSION SECTION
- 15 REMOTE TERMINAL
  - VERIFICATION RESULT SIGNAL
  - 302 RECEPTION SECTION
  - 204 DISPLAY SECTION
  - USER B TERMINAL
- 20

FIG.5

- 100 USER A TERMINAL
- VOICE OF USER A
- N NETWORK
- 25 TRANSFER OF VOICE OF USER A + CORRESPONDING SAMPLE
- VERIFICATION RESULT
- 600 REMOTE TERMINAL

VOICE OF USER A

VERIFICATION RESULT

TRANSFER OF VOICE OF USER A + CORRESPONDING SAMPLE

500 USER B TERMINAL

5

FIG.6

RECEIVED VOICE SIGNAL

501 TRANSMISSION SECTION

CORRESPONDING SAMPLE SIGNAL

10 201 USER SPECIFICATION INPUT SECTION

USER SPECIFICATION SIGNAL

202 VOICE DATA SAMPLE STORAGE SECTION

USER B TERMINAL

601 RECEPTION SECTION

15 602 VOICE VERIFICATION SECTION

603 TRANSMISSION SECTION

REMOTE TERMINAL

VERIFICATION RESULT SIGNAL

302 RECEPTION SECTION

20 204 DISPLAY SECTION

USER B TERMINAL

FIG.7

100 USER A TERMINAL

25 VOICE OF USER A

N NETWORK

USER SPECIFICATION SIGNAL

CORRESPONDING SAMPLE SIGNAL

800 REMOTE TERMINAL

VOICE OF USER A

CORRESPONDING SAMPLE SIGNAL

5 USER SPECIFICATION SIGNAL

700 USER B TERMINAL

FIG.8

701 TRANSMISSION SECTION

10 USER SPECIFICATION SIGNAL

201 USER SPECIFICATION INPUT SECTION

USER B TERMINAL

801 RECEPTION SECTION

802 VOICE DATA SAMPLE STORAGE SECTION

15 803 TRANSMISSION SECTION

REMOTE TERMINAL

CORRESPONDING SAMPLE SIGNAL

702 RECEPTION SECTION

RECEIVED VOICE SIGNAL

20 203 VOICE VERIFICATION SECTION

VERIFICATION RESULT SIGNAL

204 DISPLAY SECTION

USER B TERMINAL